

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P291178

Luminaire Tested: **14GR-LD5-43-A125-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291178
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33315)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-43-A125-UNV-L83050-W2A1-U-4500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4679.0 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

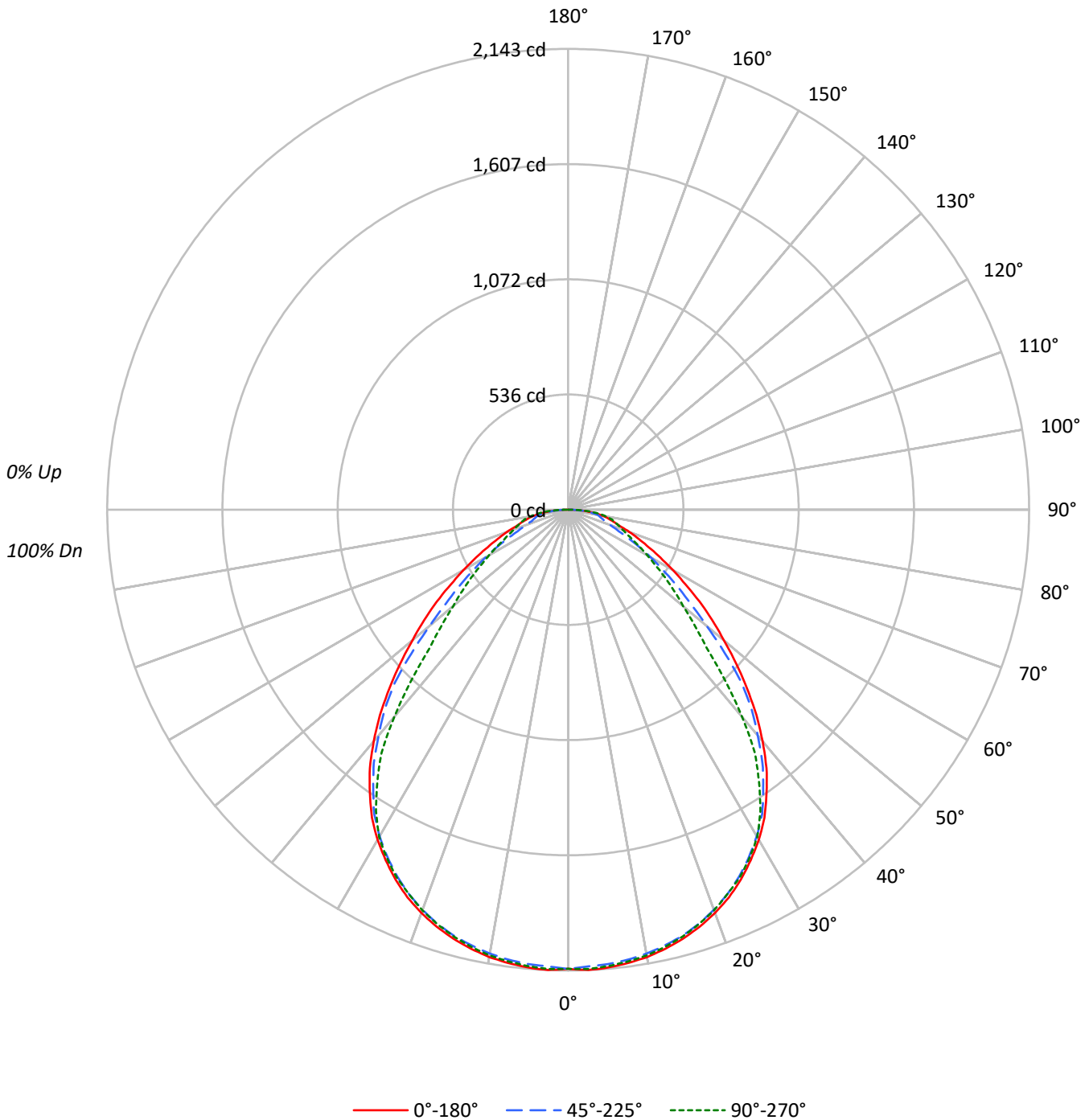
Input Watts (W): 38.316
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 94 | 88 | 82 | 99 | 92 | 86 | 82 | 88 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 |
| 7 | 69 | 56 | 48 | 43 | 67 | 56 | 48 | 42 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 |
| 8 | 65 | 52 | 44 | 38 | 63 | 51 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 38 | 36 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 33 |
| 10 | 57 | 44 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 41 | 35 | 31 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5746 | 5746 | 5746 |
| 5° | 5773 | 5730 | 5756 |
| 10° | 5772 | 5728 | 5751 |
| 15° | 5752 | 5716 | 5724 |
| 20° | 5713 | 5670 | 5676 |
| 25° | 5637 | 5586 | 5602 |
| 30° | 5508 | 5447 | 5461 |
| 35° | 5281 | 5192 | 5081 |
| 40° | 4938 | 4816 | 4419 |
| 45° | 4470 | 4342 | 3466 |
| 50° | 3954 | 3513 | 2922 |
| 55° | 3499 | 2888 | 2577 |
| 60° | 3020 | 2390 | 2284 |
| 65° | 2627 | 1901 | 2101 |
| 70° | 2375 | 1631 | 2101 |
| 75° | 2280 | 1704 | 2348 |
| 80° | 2540 | 2170 | 2741 |
| 85° | 2680 | 2313 | 3285 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 202.5 | 4.3 |
| 10°-20° | 580.4 | 12.4 |
| 20°-30° | 868.6 | 18.6 |
| 30°-40° | 983.3 | 21.0 |
| 40°-50° | 837.5 | 17.9 |
| 50°-60° | 567.1 | 12.1 |
| 60°-70° | 338.6 | 7.2 |
| 70°-80° | 211.5 | 4.5 |
| 80°-90° | 89.4 | 1.9 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1651.6 | 35.3 |
| 0°-40° | 2634.9 | 56.3 |
| 0°-60° | 4039.5 | 86.3 |
| 0°-90° | 4679.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4679.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2135 | 2135 | 2135 | 2135 | 2135 | |
| 5° | 2137 | 2132 | 2121 | 2134 | 2131 | 203 |
| 15° | 2065 | 2057 | 2052 | 2065 | 2055 | 582 |
| 25° | 1898 | 1893 | 1881 | 1890 | 1887 | 873 |
| 35° | 1608 | 1598 | 1580 | 1564 | 1547 | 1002 |
| 45° | 1174 | 1178 | 1141 | 973 | 911 | 906 |
| 55° | 746 | 704 | 616 | 549 | 549 | 667 |
| 65° | 412 | 344 | 298 | 319 | 330 | 416 |
| 75° | 219 | 196 | 164 | 215 | 226 | 237 |
| 85° | 87 | 80 | 75 | 94 | 106 | 93 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P291178

CATALOG NUMBER: 14GR-LD5-43-A125-UNV-L83050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2135.2 | 2135.2 | 2135.2 | 2135.2 | 2135.2 |
| 2.5° | 2142.8 | 2137.3 | 2125.4 | 2139.5 | 2137.3 |
| 5° | 2137.3 | 2131.9 | 2121.1 | 2134.1 | 2130.8 |
| 7.5° | 2126.5 | 2121.1 | 2111.3 | 2124.3 | 2118.9 |
| 10° | 2112.4 | 2105.9 | 2096.1 | 2110.2 | 2104.8 |
| 12.5° | 2090.7 | 2084.2 | 2075.5 | 2089.6 | 2082.0 |
| 15° | 2064.6 | 2057.0 | 2051.6 | 2064.6 | 2054.8 |
| 17.5° | 2033.1 | 2026.6 | 2019.0 | 2032.1 | 2021.2 |
| 20° | 1995.1 | 1989.7 | 1979.9 | 1987.5 | 1982.1 |
| 22.5° | 1951.7 | 1944.1 | 1934.4 | 1943.0 | 1935.4 |
| 25° | 1898.5 | 1893.1 | 1881.2 | 1889.9 | 1886.6 |
| 27.5° | 1837.7 | 1834.5 | 1820.4 | 1831.2 | 1825.8 |
| 30° | 1772.6 | 1763.9 | 1753.1 | 1756.3 | 1757.4 |
| 32.5° | 1697.7 | 1686.9 | 1678.2 | 1670.6 | 1663.0 |
| 35° | 1607.6 | 1597.9 | 1580.5 | 1564.2 | 1546.8 |
| 37.5° | 1514.3 | 1501.2 | 1483.9 | 1448.1 | 1426.3 |
| 40° | 1405.7 | 1399.2 | 1371.0 | 1321.1 | 1258.1 |
| 42.5° | 1295.0 | 1288.5 | 1263.5 | 1151.7 | 1083.3 |
| 45° | 1174.5 | 1177.8 | 1140.9 | 972.6 | 910.7 |
| 47.5° | 1059.4 | 1068.1 | 987.8 | 830.4 | 797.8 |
| 50° | 944.4 | 954.2 | 839.1 | 717.5 | 698.0 |
| 52.5° | 843.4 | 835.8 | 715.3 | 629.6 | 620.9 |
| 55° | 745.7 | 704.5 | 615.5 | 549.3 | 549.3 |
| 57.5° | 645.9 | 587.3 | 523.2 | 480.9 | 480.9 |
| 60° | 561.2 | 488.5 | 444.0 | 415.7 | 424.4 |
| 62.5° | 483.0 | 406.0 | 368.0 | 362.6 | 373.4 |
| 65° | 412.5 | 344.1 | 298.5 | 319.1 | 330.0 |
| 67.5° | 355.0 | 294.2 | 245.3 | 288.7 | 295.3 |
| 70° | 301.8 | 256.2 | 207.3 | 265.9 | 267.0 |
| 72.5° | 252.9 | 225.8 | 178.0 | 241.0 | 245.3 |
| 75° | 219.3 | 196.5 | 163.9 | 214.9 | 225.8 |
| 77.5° | 192.1 | 168.3 | 150.9 | 185.6 | 206.2 |
| 80° | 163.9 | 137.9 | 140.0 | 156.3 | 176.9 |
| 82.5° | 125.9 | 106.4 | 110.7 | 128.1 | 144.4 |
| 85° | 86.8 | 80.3 | 74.9 | 94.4 | 106.4 |
| 87.5° | 46.7 | 43.4 | 38.0 | 53.2 | 54.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)